

VI.—*On small Mammals from the Delta of the Parana.*
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By the kind hospitality of Cols. Knight and Porteous, and the active help of their manager Mr. James Hunter, Mr. Robin Kemp has been enabled to make a collection at Isla Ella, in the delta of the Rio Parana, at the top of the La Plata Estuary.

So near Buenos Ayres, and in a general region that has been visited by numbers of collectors, one did not expect any novelties, and it has therefore been with the greatest interest that I have found in this little collection no less than three forms which prove to need description, one of these representing a new genus, while there is also a fine series of the striking water-rat *Scapteromys tomentosus*, hitherto wanting in the Museum collections.

The islands where the specimens were obtained are remarkable for the fact that they are more or less completely flooded when a south-east wind banks up the waters of the La Plata Estuary, and Mr. Kemp records that he has had to wade through the rising waters to retrieve his traps, and that then, the water having fallen and the traps been re-set, he has again caught numbers of specimens. This shows, of course, that all the local species have learnt to take refuge in trees, unless they are themselves absolutely aquatic. That such animals as *Oryzomys*, *Orymycterus*, *Akodon*, and the new genus *Deltamys*, all normally terrestrial, should thus have become arboreal on occasion, is a remarkable case of adaptation to local conditions.

Neither the burrowing tuco-tuco (*Ctenomys*) nor the common "lancha" (*Hesperomys*) are contained in the collection, and they have no doubt been unable to live in so water-logged a region.

The collection consists of forty-eight specimens, and would have been more had not one of Mr. Kemp's cases fallen a victim to barbarian methods of warfare, and been sunk in the R.M.S. 'Drina.' Happily the lost box does not appear to have contained any species unrepresented in that which safely arrived.

In this connection I should like to express the obligation that the National Museum is under to the authorities of the

Royal Mail Steam Packet Company, who have assisted Mr. Kemp's exploration in various very material ways.

1. *Holochilus vulpinus*, Brants.

♂. 2789, 2813, 2824; ♀. 2832, 2835.

These and the specimens of *Scipteromys tomentosus* are practically topotypes of their respective species, as Sello was said to have collected both types on the Rio Uruguay, and the water of that river washes the lower (eastern) end of the islands of the Parana delta.

2. *Scapteromys tomentosus*, Licht.

♂. 2815, 2817, 2818, 2819, 2826, 2829, 2842, 2843; ♀. 2804, 2814, 2828, 2831, 2834, 2839; and one ♀ in spirit.

This series forms a very valuable addition to our collections, for although discovered on the R. Uruguay as long ago as 1827, the species has never hitherto been sent home to us. Even the genus was only represented by the type of *S. tumidus*, Waterh., from Maldonado (*C. Darwin*), and one skin, with imperfect skull, of the same species from Soriano, Uruguay (*O. V. Aplin*).

Between the two species there does not seem to be any very important skull-character, and *S. tomentosus* would appear to be really a blackish delta representative of the greyer animal of Uruguay.

3. *Oryzomys delticola**, sp. n.

♂. 2845, 2846; ♀. 2812.

A middle-sized species, far larger than *O. flavescens*.

Size and general characters very much as in *O. longicaudatus* of Chili. Colour above lined buffy brown, the light rings on the hairs cinnamon-buff, but the general colour not quite like anything in Ridgway, though nearest to "clay-colour" or "buckthorn-brown." Sides, although a clearer tone than the back, not richly buffy. Under surface greyish white, tinged in one specimen with buffy; the bases of the hairs slaty. Head greyer than back; ears, or at least the proectote, blackish. Hands and feet dull whitish. Tail long,

* This is not a hybrid word, as "delta," although originally Greek, was incorporated into Latin as a declinable substantive.

slender, finely scaled, brown above, whitish below, the usual narrow dark line perceptible along the lower side.

Skull of about the same size as in *O. longicaudatus*, markedly larger than in *O. flavescens*. The interorbital region broader than in the first-named, its edges sharply square, but not ridged. Zygomatic plate rather less projected forward. Palatal foramina ending just opposite the front edge of *m*¹.

Incisors directed backwards towards the throat, their angle with the tooth-row about 65°. Molars rather larger than in *longicaudatus*.

Dimensions of the type (measured in flesh):—

Head and body 105 mm.; tail 125; hind foot 28; ear 17.

Skull: greatest length 27·5; condylo-incisive length 23·2; zygomatic breadth 14·4; nasals 10·2; interorbital breadth 4; breadth of brain-case 12·5; palatilar length 11·5; palatal foramina 6; upper molar series 4.

Type. Adult male. B.M. no. 17. 6. 1. 23. Original number 2846. Collected 17th February, 1917.

This second species of *Oryzomys* is an unexpected discovery, for all over Uruguay and Argentina (apart from the far south) only one species—*O. flavescens* or a member of that group—has hitherto been known, and *O. delticola* would seem to be quite isolated in the present locality.

It would appear to be most nearly allied to the Chilean *O. longicaudatus*, and thus bears the same geographical relationship to that animal that the Parana coypu does to the Chilean one.

4. *Oryzomys flavescens*, Waterh.

♂. 2825; and a ♀ in spirit.

This, the only non-peculiar mouse in the delta, is widely distributed over Uruguay and Middle Argentina. Specimens vary very much in coloration, the under surface of some being strongly buffy and of others white, but extremes and all intermediate phases are found in the same localities.

5. *Akodon arenicola hunteri*, subsp. n.

♂. 2821, 2822, 2833, 2837, 2841, 2847; ♀. 2823, 2838; and one ♀ in spirit.

Like true *arenicola* in colour and other characters, but averaging decidedly larger, the hind foot 21–22 mm. in length, while in *arenicola* it is ordinarily 18–19, rarely reaching 20;

and the skull 24–25·5 mm. in condylo-incisive length, that of *arenicola* ordinarily 22·5–23·5, exceptional specimens just surpassing 24.

Dimensions of the type (measured in flesh):—

Head and body 101 mm.; tail 81; hind foot 21·5; ear 13·5.

Skull: greatest length 27·7; condylo-incisive length 25·5; zygomatic breadth 13·6; palatilar length 12; palatal foramina 6·7; upper molar series 4·5.

Type. Old male. B.M. no. 17. 6. 1. 28. Original number 2841. Collected 12th February, 1917.

Named in honour of Mr. James Hunter, the Managing Director of the Isla Ella Fruit and Forest Company, to whose help and kindness Mr. Kemp was so greatly indebted during his visit to the Delta.

Akodon arenicola, the commonest mouse of the Argentine, occurs in numbers in every collection that we have received from the area between Goya, Corrientes, in the north, and Bonifacio, Buenos Ayres, in the south, in Southern Uruguay, and Eastern Buenos Ayres, and it is everywhere of very uniform size and coloration. Only here, almost in the centre of its general range, but under exceptional local conditions, there is so considerable an increase in its size as to deserve recognition by name.

"From the osiers"; "from an overgrown orchard"; "from the virgin jungle-growth"; "from withy beds."—*R. K.*

6. *Deltamys kemp*i, gen. et sp. n.

♂. 2836, 2840, 2848; ♀. 2830.

DELTAMYS, gen. nov.

External characters as in *Akodon*, claws and fur normal. Eyes small. Skull remarkably narrow, both as regards the breadth of the cranium and the lateral spread of the zygomata; zygomatic breadth less than half the condylo-incisive length. Supraorbital edges rounded or with a mere trace of the normal squaring. Zygomatic plate scarcely projected forwards. First upper molar with anterior notch. Second upper molar with the small antero-external cross-ridge obsolete.

Genotype: *Deltamys kemp*i, sp. n.

This genus is clearly one of the Akodont series, of which

a general arrangement was published last year*. It is probably most nearly allied to *Akodon* itself, but the remarkable narrowness of the skull, the small zygomatic spread, the reduction of the zygomatic plate, and the simplification of the teeth, notably of m^2 , all indicate sufficient peculiarity to prevent the species being included in that genus.

As a ready means of identification the fact that the zygomatic spread is less instead of more than half the condylo-incisive length will enable *Deltamys* to be distinguished from all the genera mentioned in my key.

The teeth seem to be somewhat simpler in structure than in the known forms, but more specimens will be needed before the value and constancy of this character can be determined, for only one of the four specimens of *D. kempi* has the teeth unworn enough to show the structure. But certainly this specimen exhibits a very distinctive difference in the reduction, practically to nil, of the small cross-ridge at the front outer corner of m^2 —a ridge present, and generally far more conspicuous than in *Akodon*, in most S.-American Muridæ.

The following is a description of the species :—

Size rather smaller than in *Akodon arenicola*, form decidedly more slender. Fur of normal character and medium length, hairs of back about 8–9 mm. long. General colour above blackish brown, inconspicuously washed on head, fore-back, and sides with drabby or olivaceous, nearly unmixed black on the median part of the hind back. One specimen, however, is more olivaceous throughout, and so far as body-colour is concerned might be taken for a rather dark-coloured individual of *A. arenicola*. Under surface dull brownish grey, the hairs slaty basally, their tips brownish on belly, greyer on the chest; a marked wholly white patch on the chin. Eyes rather small, without lighter ring round them. Ears short, well-haired, blackish brown. Hands and feet dark brown; claws normal in length, the pollex with a nail. Tail rather shorter than head and body, thinly haired, finely scaled (15 rings to the cm.), dark brown throughout.

Skull slender, remarkably narrow, with but slightly expanded zygomata. Interorbital region smooth, convex, unridged, its edges scarcely squared. Brain-case narrow, smooth, and rounded. Interparietal much reduced, scarcely perceptible at all in three of the specimens, and a mere narrow strip in the fourth. Zygomatic plate narrow, scarcely projected forwards. Palatal foramina long, well open, not

* Ann. & Mag. Nat. Hist. (8) xviii. p. 336.

specially narrowed behind. Mesopterygoid fossa broad, twice as wide at its anterior end as the base of the narrow pterygoids on each side of it; in most members of the Akodont group the base of each pterygoid is as broad as the fossa between the two. Bullæ small, as in *Akodon*.

Incisors rather thrown forward, their angle with the molar surface 80° – 83° . Molars light and slender, their structure as already referred to.

Dimensions of the type (measured in flesh):—

Head and body 89 mm.; tail 85; hind foot 22; ear 13.

Skull: greatest length 25·6; condylo-incisive length 24; zygomatic breadth 11·7; nasals 9·2; interorbital breadth 4·4; breadth of brain-case 10·8; palatal foramina 5·7; breadth of mesopterygoid opening 1·5; upper molar series 4.

Type. Adult male. B.M. no. 17. 6. 1. 35. Original number 2830. Collected 1st February, 1917.

This little blackish mouse is a most interesting addition to the fauna of Eastern Argentina, being so very different from any other animal known there. Like *Oxymycterus tomentosus*, similarly dark-coloured, it is no doubt peculiar to the marshy and water-logged region of the Parana delta, and has on this account escaped discovery until Mr. Kemp's visit to the islands.

"From neglected orchard"; "from the jungle pajanal."
—*R. K.*

7. *Oxymycterus platensis*, Thos.

♂. 2827, 2844; ♀. 2820.

8. *Myocastor coypus bonariensis*, Geoff.

Two skulls.

9. *Cavia pamparum*, Thos.

Four skulls.

10. *Blastocerus dichotomus*, Ill.

♀. 2850.

"Presented by Mr. F. E. Welch.—Snared by a quintero."
—*R. K.*

11. *Lutreolina crassicaudata*, Desm.

♂. 2811, 2816.